

## :: SAMICK Support Rail Unit

SAMICK Support Rail Unit is assembled of Support Rail, LM Shaft, and Open type Linear Bushing Case. All components are standardized for providing interchangeability, and less cost and designing time.



<b>Support Rail Unit</b>	SBS	C	h6	30	-	1000	L
<b>SAMICK Support Rail Unit</b>							
Support Rail Unit for SBR : SBS Support Rail Unit for TBR : TBS							
<b>Shaft(by corrosion resistance)</b>							
No plating (Standard) : Blank Chrome plated shaft : C Nickel plated shaft : N Raydent treated shaft : R							
<b>Shaft tolerance</b>							
Asian standard g6 tolerance shaft : blank European standard h6 tolerance shaft : h6							
<b>Shaft Diameter</b>							
16~50mm							
<b>Shaft Length</b>							
100~3000mm							

## :: SAMICK LM Shaft

SAMICK supply precision LM shaft for SAMICK Linear Bushing. The hardness, surface finishing, and tolerance of shaft must be considered for choosing the proper shaft because the balls are running directly on the shaft surface. Shaft dimensions are as follows

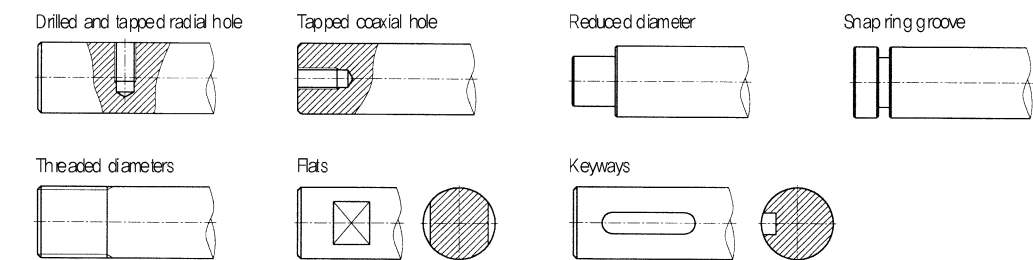
- Material : High carbon chromium bearing steel
- Hardness : Hrc58 ~ 64
- Hardened depth : 0.8 ~ 2.5mm
- Surface finishing : 0.8S ~ 1.6S
- Straightness : 0.05mm / 300mm

<b>LM Shaft</b>	SF	C	h6	30	-	1000	L
<b>SAMICK Support Rail Unit</b>							
<b>Shaft(by corrosion resistance)</b>							
No plating (Standard) : Blank Chrome plated shaft : C Nickel plated shaft : N Raydent treated shaft : R							
<b>Shaft tolerance</b>							
Asian standard g6 tolerance shaft : blank European standard h6 tolerance shaft : h6							
<b>Shaft Diameter</b>							
5~80mm							
<b>Shaft Length</b>							
100~3000mm							

### Shaft Special Machining

SAMICK also supply specially machined shaft as shown in the below figure. The drilled and tapped holes on LM shaft for mounting on the Support Rail are also available.

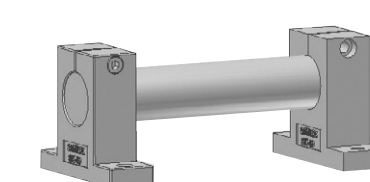
#### (Example of machining)



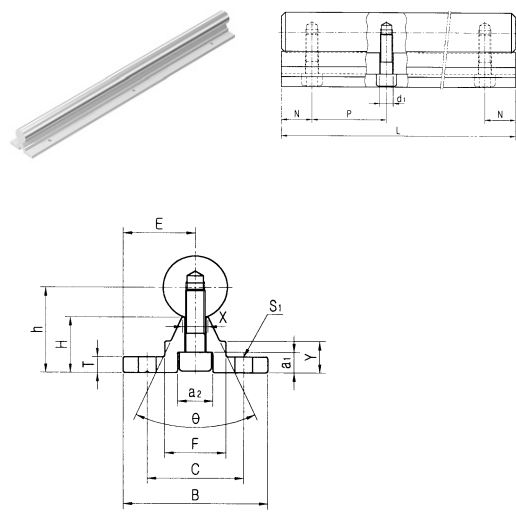
## :: SAMICK Shaft Support

Support for Shaft ends, SAMICK Shaft Support is made of aluminum with compact design, and able to fix the LM shaft by tightening bolt at the axial direction slot.

<b>Shaft Support</b>	SK	20
<b>SAMICK Shaft Support (Aluminum)</b>		
<b>LM Shaft diameter</b>		
6~40mm		



| SBS SUPPORT RAIL UNIT |



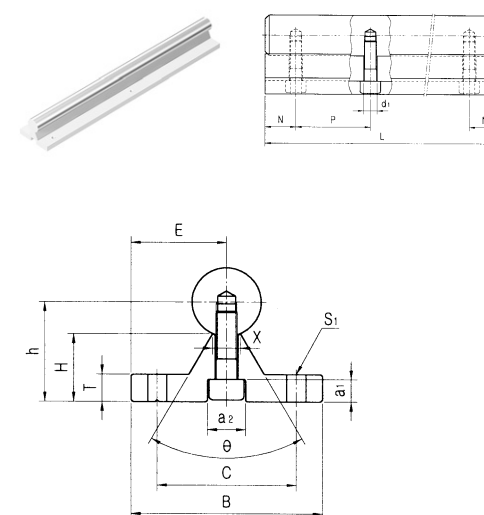
SUPPORT RAIL UNIT	SBS	C	h6	30	-	1000	L
Type	Support Rail Unit for SER : SBS						
Shaft (by corrosion resistance)	No plating (Standard) : Blank Chrome plated shaft : C Nickel plated shaft : N Raydent treated shaft : R						
Shaft tolerance	Asian standard g6 tolerance shaft : Blank European standard h6 tolerance shaft : h6						
Shaft Diameter	16~50mm						
Shaft Length	100~3000m						

PART NUMBER	Shaft Outer diameter	E	h	B	H	T	F	X	Y	C	θ	S <sub>1</sub>	a <sub>1</sub>	a <sub>2</sub>	d <sub>1</sub>	WEIGHT (kgf/m)
SBS16	16	20	25	40	17.79	5	18.5	8	11.7	30	80	5.5	6	9.5	5.5	2.56
SBS20	20	22.5	27	45	17.72	5	19	8	10	30	50	5.5	6.5	11	6.6	3.50
SBS25	25	27.5	33	55	21.13	6	21.5	8	12	35	50	6.6	6.5	11	6.6	5.30
SBS30	30	30	37	60	22.85	7	26.5	10.3	13	40	50	6.6	8.5	14	9	7.38
SBS35	35	32.5	43	65	26.62	8	28	13	15.5	45	50	9	8.5	14	9	9.68
SBS40	40	37.5	48	75	29.43	9	38	16	17	55	50	9	8.5	14	9	12.69
SBS45	45	47.5	62	95	38.79	11	45	20	21	70	50	11	12.5	19	11	20.46

PART NUMBER	Max. Length (mm)	P	500	600	800	1000	1200	1400	N x NH		1600	1800	2000	2200	2400	2600	3000
SBS16	3000	150	25x3	75x3	100x4	50x6	75x7	25x9	50x10	75x11	25x13	50x14	75x15	25x17	75x19		
SBS20	3000	150	25x3	75x3	100x4	50x6	75x7	25x9	50x10	75x11	25x13	50x14	75x15	25x17	75x19		
SBS25	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	75x11	25x13	50x14	75x15	25x17	75x19		
SBS30	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	75x11	25x13	50x14	75x15	25x17	75x19		
SBS35	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	75x11	25x13	50x14	75x15	25x17	75x19		
SBS40	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	75x11	25x13	50x14	75x15	25x17	75x19		
SBS50	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	75x11	25x13	50x14	75x15	25x17	75x19		

Note 1) N values can vary depending on length of Shaft.  
 Note 2) NH (Number of Holes): the number of mounting hole according to pitch value.  
 Note 3) P & N value must specified when orders.

| TBS SUPPORT RAIL UNIT |



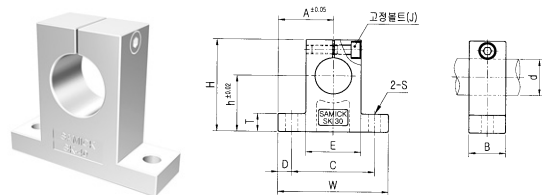
SUPPORT RAIL UNIT	TBS	C	h6	30	-	1000	L
Type	Support Rail Unit for TBR : TBS						
Shaft (by corrosion resistance)	No plating (Standard) : Blank Chrome plated shaft : C Nickel plated shaft : N Raydent treated shaft : R						
Shaft tolerance	Asian standard g6 tolerance shaft : Blank European standard h6 tolerance shaft : h6						
Shaft Diameter	16~50mm						
Shaft Length	100~3000mm						

PART NUMBER	OUTER DIAMETER	E	h	B	H	T	X	C	θ	S <sub>1</sub>	a <sub>1</sub>	a <sub>2</sub>	d <sub>1</sub>	WEIGHT (kgf/m)
TBS16A	Φ16	25	22	50	14.79	6	8	37	60°	Φ5.5	6	9.5	5.5	2.66
TBS20A	Φ20	27.5	29	55	19.72	8	8	40	50°	Φ5.5	6.5	11	6.6	4.23
TBS25A	Φ25	32.5	32	65	20.13	10	8	45	50°	Φ6.6	6.5	11	6.6	5.85
TBS30A	Φ30	37.5	36.5	75	22.35	12	10.3	55	50°	Φ6.6	8.5	14	9	8.28

PART NUMBER	Max. Length (mm)	P	500	600	800	1000	1200	1400	N x NH		1600	1800	2000	2200	2400	2600	3000
TBS16	3000	150	25x3	75x3	100x4	50x6	75x7	25x9	50x10	75x11	25x13	50x14	75x15	25x17	75x19		
TBS20	3000	150	25x3	75x3	100x4	50x6	75x7	25x9	50x10	75x11	25x13	50x14	75x15	25x17	75x19		
TBS25	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	100x8	100x9	100x10	100x11	100x12	100x14		
TBS30	3000	200	50x2	100x2	100x3	100x4	100x5	100x6	100x7	100x8	100x9	100x10	100x11	100x12	100x14		

Note 1) N values can vary depending on length of Shaft.  
 Note 2) NH (Number of Holes): the number of mounting hole according to pitch value.  
 Note 3) P & N value must specified when orders.

| SK Shaft Support |



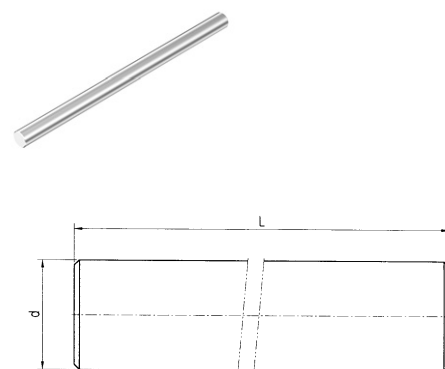
**SHAFT SUPPORT SK 20**  
 Samick Shaft Support(Aluminum)  
 Shaft Diameter

PART NUMBER	Shaft Outer diameter	h	A	W	H	T	E	D	C	B	S	J	WEIGHT (g)
SK8	8	20	21	42	32.8	6	18	5	32	14	5.5	M4	24
SK10	10	20	21	42	32.8	6	18	5	32	14	5.5	M4	24
SK12	12	23	21	42	38	6	20	5	32	14	5.5	M4	30
SK13	13	23	21	42	38	6	20	5	32	14	5.5	M4	30
SK16	16	27	24	48	44	8	25	5	38	16	5.5	M4	40
SK20	20	31	30	60	51	10	30	7.5	45	20	6.6	M5	70
SK25	25	35	35	70	60	12	38	7	56	24	6.6	M6	130
SK30	30	42	42	84	70	12	44	10	64	28	9	M6	180
SK35	35	50	49	98	85	15	50	12	74	32	11	M8	270
SK40	40	60	57	114	96	15	60	12	90	36	11	M8	420

99

References

| SF Shaft |



**Shaft SF C h6 30 - 1000 L**  
 Samick LM Shaft

**Corrosion resistance treatment**  
 No plating (Standard) : Blank  
 Chrome plated shaft : C  
 Nickel plated shaft (Length Max 1m) : N  
 Raydent treated shaft : R

**Shaft tolerance**  
 Asian standard g6 tolerance shaft : Blank  
 European standard h6 tolerance shaft : h6

**Shaft Diameter** 16~50mm

**Shaft Length** 100~3000mm

diameter	6	8	10	12	13	16	20	25	30	35	40	50	60	80
Diameter	-0.004	-0.005		-0.006			-0.007			-0.009			-0.010	
tolerance(g6)	-0.012	-0.014		-0.017			-0.020			-0.025			-0.029	
WEIGHT (kg/m)	0.22	0.39	0.62	0.89	1.04	1.58	2.46	3.85	5.55	7.55	9.86	15.41	22.18	39.44
Max Length(mm)	500	500	2000	2000	2000	3000	3000	3000	3000	3000	3000	3000	3000	3000

- Shaft dimensions are as follows
- Material : SUJ2(High carbon chromium bearing steel)
- Hardened depth : 0.8~2.5mm
- Straightness : 0.05mm/300mm
- Hardness : H:C58~64
- Surface finishing : 0.8S~1.6S